

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended) An ablation catheter comprising:

a tubular body having a circumference, at least one actuating lumen sealed at a first end and open to fluid flow at a second end, and a distal end region, the tubular body defining at least a partial curve along the distal end region of the tubular body, the partial curve being adapted to change curvature when a fluid pressure in the at least one actuating lumen changes; and

at least one ablating electrode arranged along the at least partial curve, the at least one electrode being adapted to change curvature along with the at least partial curve along the distal end region of the tubular body;

the tubular body further comprising at least one ablation fluid supply lumen extending through the at least partial curve of the distal end region and including at least one manifold to permit a fluid to exit the at least one ablation fluid supply lumen,

wherein the at least one manifold includes at least one manifold inlet port in fluid communication with an ablating fluid outlet port, the ablating fluid outlet port having a larger cross-sectional area than the at least one manifold inlet port, and

wherein the at least one electrode is configured to be flexible and resilient, and wherein the at least one electrode extends around only a portion of the circumference of the tubular body.

2. (Canceled)

3. (Previously Presented) The ablation catheter of claim 1 further comprising a flexible and resilient shaping element.

4. (Previously Presented) The ablation catheter of claim 1 wherein the at least one flexible and resilient electrode is comprised, at least partially, of material selected from

the group consisting of platinum, gold, stainless steel, and composite of conductive polymer metal.

5. (Previously Presented) The ablation catheter of claim 1 wherein the at least one electrode defines a saw tooth pattern.
6. (Previously Presented) The ablation catheter of claim 1 wherein the at least partial curve defines an outside radius, and wherein the at least one electrode defines a first end region and a second end region, and wherein the first end region is coupled with a point along the outside radius of the at least partial curve and wherein the second end region is coupled with a second point along the outside radius of the at least partial curve along the distal end region of the tubular body.
7. (Previously Presented) The ablation catheter of claim 1 wherein the at least one electrode further defines an elastically deformable electrode.
8. (Previously Presented) The ablation catheter of claim 7 wherein the at least one elastically deformable electrode is biasedly coupled with the at least partial curve along the distal end region of the tubular body.
9. (Previously Presented) The ablation catheter of claim 8 wherein the biased connection of the at least one elastically deformable electrode is biased to change the curvature of the at least partial curve along the distal end region of the tubular body.
10. (Original) The ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines a closed loop.
11. (Original) The ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines an open loop.

12. (Previously Presented) The ablation catheter of claim 1 wherein the at least one electrode includes at least one electrode strand interlaced along the at least partial curve along the distal end region of the tubular body.

13. (Original) The ablation catheter of claim 12 wherein the at least partial curve defines an outside surface, and wherein the at least one electrode strand is interlaced along the outside surface.

14. (Previously Presented) The ablation catheter of claim 12 wherein the at least partial curve defines an inside surface, and wherein the at least one electrode strand is interlaced along the inside surface.

15. (Previously Presented) The ablation catheter of claim 13 wherein the at least one electrode strand is interlaced along the outside circumference such that the electrode strand is intermittently exposed along the outside circumference.

16. (Original) The ablation catheter of claim 15 wherein:

the at least one electrode strand defines a first length of the at least one strand, the first length defining intermittently exposed sections of the at least one electrode strand; and

the at least one electrode strand further defines a second length of the at least one strand, the second length defining intermittently exposed sections of the at least one electrode strand.

17. (Original) The ablation catheter of claim 16 wherein the first length of the at least one strand and the second length of the at least one strand cooperate to define a generally continuously exposed segment of the at least one strand.

18. (Previously presented) The ablation catheter of claim 17 wherein the generally continuously exposed segment of the at least one strand is coupled with a power supply and adapted to be energized thereby during an ablation procedure.

19. (Currently Amended) An ablation catheter comprising
a tubular shaft having a circumference and defining a distal end region, the tubular shaft further defining at least a partial curve along the distal end region;
the tubular shaft defining at least one lumen including at least one manifold located along the at least a partial curve to permit a fluid flowing within the at least one lumen to exit the tubular shaft through the at least one manifold; and
flexible and resilient electrode means for conveying ablation energy to a target tissue, the flexible and resilient electrode means arranged along the at least partial curve along the distal end region of the tubular shaft and extending around only a portion of the circumference of the tubular shaft,
wherein the at least one manifold includes at least one manifold inlet port in fluid communication with an ablating fluid outlet port, the ablating fluid outlet port having a larger cross-sectional area than the at least one manifold inlet port.

20. (Previously Presented) The ablation catheter of claim 19 wherein the means for conveying ablation energy to a target tissue comprises at least one electrode arranged in a flexible and resilient configuration along some portion of the at least partial curve along the distal end region of the tubular shaft.

21. (New) The ablation catheter of claim 1, wherein the at least one manifold further comprises a fluid channel extending away from the ablating fluid outlet port in a direction substantially perpendicular to a direction in which the at least one ablating electrode is arranged.